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DATE: March 5, 2012

TO: Kelley Chase, EPA Region 3 OSC
Cynthia Caporale, EPA Region 3 OASQA

THROUGH: Ex. 4 - CBI SERAS Program Manager
Ex. 4 - CBI SERAS QA/QC Officer

FROM: Ex. 4 - CBI QA/QC Chemist

SUBJECT: VERIFICATION/COMPLETENESS CHECK – DIMOCK, PA LABORATORY DATA
Test America-Validated Report-R33917 480-15770-1.PDF

INTRODUCTION

On March 2, 2012, a review of the case narratives and corresponding certificates of analysis from Test America Laboratory (Glycols Report Posted Feb. 27) was reviewed at the SERAS facility in accordance with the Follow-Up Verification/Completeness Check agreed upon during our teleconference on Wednesday 2/8/12.

The assumptions for this review include the following: 1) Case narratives from the Regional labs and/or subcontract labs have been reviewed in accordance with Regional or Environmental Services Assessment Team (ESAT) protocols and contain all pertinent and complete information to conduct the completeness check. SERAS will base this review on the information provided by the laboratory and not on an actual data package; and 2) SERAS will relay any "red" flags to the EPA R3 personnel to resolve and determine data usability.

OBSERVATIONS

In accordance with Table 1 – Field and QC Sampling Summary (Rev01 - 2/3/12), Table 2 – Sample Analytical Requirements Summary (Rev01 – 2/3/12), Methods for Groundwater and Surface Water Samples and SW-846 8015B, the following observations were noted and need to be clarified/resolved.

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1. The holding times were checked from the time of collection on the chain of custody (COC) to the time of analysis on the analysis log sheet. Based on the criteria in SW-846 8015 (references SW-846 Chapter 4-Organic Analysis), the holding time for an unpreserved sample for this analysis is 7 days. Samples HW02, FB02, FB03, FB04, HW01, HW02z, HW04, HW05, HW06, HW08A, HW12 and HW14 exceeded the holding time criteria and all sample results would be qualified estimated (UJ) or (J).
2. Raw data was not provided, it is assumed that all sample detections were within the established retention time criteria and the stated concentrations in the LCS and MS/MSD tables are correct and pass their QC criteria.
3. A 4 point initial calibration was used by the laboratory instead of the recommended minimum of 5 points.

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4. It appears that the sample results were not qualified by their associated field blanks. The following field blanks contained 1 or more glycols: FB02 (1/24/12) contained diethylene glycol below the reporting limit (RL), the diethylene glycol results for HW04 would be qualified non-detect (U). FB03(1/25/12) contained diethylene glycol below the reporting limit (RL), the diethylene glycol results for HW02, HW01 and HW02z would be qualified (U). FB04(1/26/12) contained diethylene glycol below the reporting limit (RL), the diethylene glycol results for HW05, HW14 and HW14-P would be qualified (U). FB05(1/27/12) contained diethylene glycol below the reporting limit (RL), the diethylene glycol results for HW17, HW24 and HW24-P would be qualified (U). FB06 (1/30/12) contained diethylene glycol below the reporting limit (RL), the diethylene glycol results for HW13 would be qualified (U).
5. Only 1 equipment blank (1/28/12) was shipped with this sampling batch. An equipment blank is required 1 blank/day/matrix or 1 blank/20 samples/matrix whichever is more frequent. The equipment blank contained diethylene glycol below the RL. No qualifications could be made based on this equipment blank because it could not be determined which samples it was associated with.
6. Note: On qualifications of detections based on a second column analysis. Section 7.6.4 of SW846 8015B states, tentative identification of a single component analyte occurs when a peak from a sample extract falls within the daily retention time window. Confirmation is required on a second column or by GC/MS. Since the flame ionization detector is non-specific, it is highly recommended that GC/MS confirmation be performed on single component analytes unless historical data are available to support the identification(s). This reviewer agrees with the qualification of unusable "R" by the Region 3 validation team.
7. Raw data was not provided, it is assumed that the samples with detection were correctly identified and passed the required signal to noise ratio passed criteria and the stated concentrations in the LCS and MS/MSD tables are correct and pass their QC criteria.

cc: Ex. 4 - CBI SERAS Project Officer
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Gary Newhart, ERT WAM
Ex. 4 - CBI SERAS Task Leader